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# Methodology for the Landscape of Climate Finance in Africa

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CLIMATE  
POLICY  
INITIATIVE

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# 1. DEFINITIONS AND SCOPE

The *Landscape of Climate Finance in Africa 2024* (*Africa Landscape*) presents data on primary financing for climate resilience and greenhouse gas (GHG) emissions reduction activities in Africa for 2021 and 2022.<sup>1</sup> It closely follows the [methodology](#) developed by Climate Policy Initiative (CPI) to build its [Global Landscape of Climate Finance](#) (*Global Landscape*) reports. The *Africa Landscape* uses consolidated data from the 2023 *Global Landscape* report (CPI 2023), complemented by additional data collection. This document outlines the methodology used in the *Africa Landscape* report, including definitions, principles, accounting scope, data assumptions, and data limitations. This study relies on both publicly available and proprietary data sources and works on a best-effort basis to represent the state of climate finance in Africa. However, it is not to be taken as a substitute for conducting more comprehensive national climate finance tracking exercises (see, for example, other CPI works: [South Africa](#), [Kenya](#), [Cote d'Ivoire](#), [India](#), [Indonesia](#), etc.) that help address data gaps (see Section 3 for more information on data limitations).

## 1.1 KEY TERMINOLOGY

The definitions presented for the key terms below are taken from the Global Landscape methodology:

**Climate finance:** Finance aimed at reducing emissions and enhancing sinks of GHGs. It also aims to reduce the vulnerability, and maintain and increase the resilience, of human and ecological systems to negative climate change impacts (see UNFCCC SCF, 2020).

**Commitments:** Refers to firm obligations via investment programs, closure of financing contracts, or similar actions backed by the necessary funds.

**Mitigation finance:** Finance directed to activities that: a) contribute to reducing or avoiding GHG emissions, including gases regulated by the Montreal Protocol; or b) maintain or enhance GHG sinks and reservoirs.

**Adaptation finance:** Finance directed to activities that reduce the vulnerability of humans or natural systems to the impacts of climate change and climate-related risks, by maintaining or increasing adaptive capacity and resilience.

**Dual-benefits finance:** Finance directed to activities contributing to both “climate change mitigation” and “climate change adaptation” and meeting the respective criteria for each category.

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<sup>1</sup> The report presents flows as a two-year average to smooth out annual fluctuations.

**Multilateral and regional Development Finance Institutions (DFIs):** Institutions that have multiple shareholder countries and direct finance flows internationally.

**Bilateral DFIs:** Institutions owned by a single country that direct finance flows internationally.

**National DFIs:** Institutions owned by a single country that direct finance to their own country.

**Government and their agencies:** Flows attributed to these actors include a) bilateral climate-related development finance reported to the OECD Development Assistance Committee Creditor Reporting System (DAC-CRS) (OECD, 2024b) to track Official Development Assistance (ODA) and Other Official Flows in 2024,<sup>2</sup> and b) domestic financing through public budgets carried out by central, state, or local governments and their agencies.

**Multilateral climate funds (MCFs):** Flows attributed to this category include commitments only from DFIs' own resources. In order to avoid double counting, we exclude the following: External resources that DFIs manage on behalf of third parties; governments' contributions to DFIs or climate funds; bilateral climate funds' commitments; DFIs' contributions to projects reported by Bloomberg New Energy Finance (BNEF 2023a).

**State-owned enterprises (SOEs) and financial institutions (SOFIs):** Institutions that is 50% or more owned by a government or government agency.

**Corporations:** Organizations that have commercial activities in sectors, including project developers.

**Households:** These refer to family-level economic entities which include high-net-worth individuals and their intermediaries (e.g., family offices investing on their behalf).

**Commercial financial institutions:** Refer to providers of private debt capital (and occasionally other instruments), including commercial and investment banks.

**Institutional investors:** Includes insurance companies, asset management firms, pension funds, foundations, and endowments.

**Grants:** Transfers made in cash, services, or goods for which repayment is not required.

**Low-cost debt project-level debt:** Refers to loans extended at terms preferable to those prevailing in the market.

**Market-rate debt project-level debt:** Refers to loans extended at regular market conditions.

**Project-level equity:** Equity investment relying on the project's cash flow for repayment.

**Balance sheet financing:** Direct debt or equity investment by a company or financial institution.

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<sup>2</sup> Our estimates capture the portion of bilateral climate-related development finance reported in the OECD's DAC-CRS qualifying as Official Development Assistance or Other Official Flows in 2024. The lower bound of our figures includes finance marked as having 'climate change mitigation' or 'adaptation' as its 'principal' objective. The upper bound includes activities with a 'significant' climate change objective. In the case of activities marked both as mitigation and adaptation, we attributed related financing as 'principal.'

**Domestic and international flows:** Domestic flows pertain to climate finance that was raised and spent within the same country, while international flows pertain to climate finance flows that were raised in a specific country but spent in another.

## 1.2 USE AND SECTOR CLASSIFICATION

Whether a climate finance activity renders mitigation, adaptation, or dual benefits is usually self-reported by institutions. For instance, finance qualifying as Official Development Assistance and tracked in the OECD DAC-CRS is marked as having mitigation or adaptation as its 'principal' objective or having a 'significant' climate change objective. Multilateral Development Banks (MDBs), meanwhile, identify components of projects that can count either fully or partly as adaptation finance, but each bank's individual process determines which portions to count as mitigation or as adaptation so that the actual financing will not be double-counted.

The benefits of a climate-related activity can also be derived from the nature of the activity itself. For instance, a solar farm investment would have a mitigation objective, while a mangrove conservation project would have an adaptation one. Given this, when data on the sector, (or ideally the solution) is available, a mapping is made between the project's data and CPI's taxonomy. Then, a corresponding use is assigned to each solution. The sector, subsector, and solution definitions used to categorize each activity are shown in Table 1.

When neither data on the type of sector/solution nor its objective is available, a keyword search is done on the project name and description. Using keyword lists with solutions related to either 'mitigation' or 'adaptation' activities, an objective or use is assigned according to any existing match. In the occurrence of a project matching both types of objectives, the classification of 'dual benefits' is assigned.

**Table 1. Climate finance taxonomy used in the Africa Landscape**

| Sector  | Sub-sector   | Mitigation or adaptation solution   | Additional information and examples   |
|---|--|---|---|
| <b>Agriculture, Forestry, Other Land Uses and Fisheries</b> | Agriculture  | Financial services for sustainable production, commercialization, storage, and processing   |   |
|   |  | Supply chain management (commercialization, primary processing & storage)   |   |
|   |  | Sustainable crops, agro-forestry, livestock production  | Ex. Investments in crops that are more resilient to climate extremes and change |
|   | Food & diet  | Food waste and low-carbon diets   |   |
|   | Fisheries  | Supply chain management (commercialization, primary processing & storage)   |   |
|   |  | Sustainable fish production   |   |
|   | Forestry   | Afforestation, reforestation, forest conservation, sustainable management of existing forest, including extraction of non-timber products |   |
|   |  | Supply chain management (commercialization, primary processing & storage)   |   |
|   | Policy & national budget support & capacity building | NA  |   |
| Unspecified / multiple                                      | NA   |   |   |
| <b>Buildings &amp; Infrastructure</b>                       | Appliances & Lighting                                | Efficient Lighting systems (incl. public lighting)  | Ex. LEDs  |
|   | Building & infrastructure construction work          | Energy efficiency - new construction  |   |
|   |  | Energy efficiency - retrofit  |   |
|   |  | Resilient infrastructure and infrastructure for resilience  |   |
|   | HVAC & water heaters                                 | Solar thermal - water heaters   |   |
|   |  | Renewable Energy-based HVAC   |   |
|   |  | Energy Efficient HVAC   | Efficient cooling, etc.   |
| Other/unspecified   | NA   |   |   |
| Policy & national budget support & capacity building        | NA   | Ex. More robust building regulations and improved enforcement   |   |
| <b>Energy Systems</b>                                       | Fuel Transmission & Distribution                     | NA  | Ex. Green hydrogen pipelines  |
|   | Fuel production                                      | Biogas  | Production of biogas connected to natural gas pipelines                         |
|   |  | Biofuel   | Biofuel production  |
|   |  | Hydrogen from renewables  |   |

| Sector   | Sub-sector   | Mitigation or adaptation solution                                 | Additional information and examples  |   |
|--|--|---|--|---|
|  | Other/unspecified                                    | NA  | Other energy projects including general energy access development with clear mitigation and/or adaptation benefits |   |
|  | Policy & national budget support & capacity building | NA  |  |   |
|  | Power & heat generation                              | Biofuel/biomass-fired   |  | If a project's GHG emissions reductions are demonstrated compared with technically and economically viable alternatives |
|  |  | Carbon Capture Use and Storage (CCUS) in Fossil Fuel power plants |  | Incremental costs of CCUS technology only   |
|  |  | Geothermal  |  |   |
|  |  | Hydro power <sup>3</sup>  |  | If a project's GHG emission reductions are demonstrated compared with technically and economically viable alternatives  |
|  |  | Hydrogen fuel cell  |  | Using green hydrogen only   |
|  |  | Multiple  |  | Unspecified RE projects or projects with combining multiple energy sources  |
|  |  | Off grid (renewables only)  |  | Renewables only   |
|  |  | Other marine  |  | Wave, Tidal, etc.   |
|  |  | Renewable Retrofit  |  | Energy Efficiency in existing renewable power assets  |
|  |  | Resilient Infrastructure and Infrastructure for Resilience        |  | Ex. Reduction in river flows leading to loss of generation from a hydroelectric plant                                   |
|  |  | Solar – Concentrated Solar Power (CSP)                            |  |   |
|  |  | Solar – Photovoltaic (PV)   |  | Utility scale and distributed   |
|  |  | Waste-to-energy   |  | Ex. incineration, gasification, pyrolysis and plasma with clear mitigation benefits                                     |
|  |  | Wind - offshore   |  |   |
|  | Wind - onshore                                       |   |  |   |
|  | Power & heat transmission & distribution             | District Heating  |  | Fueled by renewable energy only   |
|  |  | Mini grids  |  |   |
|  |  | Smart grid  |  |   |
| Resilient Infrastructure and Infrastructure for Resilience |  |   | Ex. Undergrounding of power lines  |   |
| Power grid - retrofit                                      |  |   | Retrofits that lead to clear energy efficiency gains   |   |

<sup>3</sup> CPI does not include large hydro projects financed by 1) the public sector and that does not demonstrate mitigation potential, and 2) the private sector.

| Sector   | Sub-sector   | Mitigation or adaptation solution                          | Additional information and examples  |
|--|--|--|--|
|  |  | Power grid - new   | That enable the integration of renewable power capacity  |
| Industry   | Industrial, extraction, and manufacturing processes  | Energy-use improvements & other GHG cuts                   | Energy consumption and GHG cuts in industrial processes  |
|  |  | Carbon Capture Use and Storage                             | Excluding Energy sector – Incremental cost only  |
|  |  | Substitution with Hydrogen from Renewables                 | Industrial processes using hydrogen shifting from FF-based Hydrogen to RE-based hydrogen                           |
|  |  | Non-energy and fugitive GHG reduction                      | Ex. Substitutions in industrial processes with associated GHG cuts   |
|  | Industry Infrastructure & Warehouse                  | Energy Efficiency  | Low-consumption warehouses and light industry buildings  |
|  |  | Resilient Infrastructure and Infrastructure for resilience | Ex. Improve resilience of existing industrial plant/flood protection etc.  |
|  | Other/unspecified                                    | NA   |  |
| Policy & national budget support & capacity building | NA   |  |  |
| Information and Communications Technology            | Data Centers   | NA   |  |
|  | Telecommunication Networks                           | NA   | New highly energy efficient networks or energy efficient retrofits   |
|  |  | Resilient Infrastructure and Infrastructure for Resilience |  |
|  | Policy & National Budget Support & Capacity Building | NA   |  |
| Other/unspecified                                    | NA   |  |  |
| Others & Cross-Sectoral                              | Biodiversity, land & marine conservation             | NA   |  |
|  | Disaster-risk management                             | NA   | Ex. Integration of climate change scenarios and climate risk assessments into disaster-risk plans and preparedness |
|  | Other/unspecified                                    | NA   |  |
|  | Policy & national budget support & capacity building | NA   |  |
| Transport  | Aviation   | Energy Efficiency - Retrofit                               |  |
|  |  | Modal Shift Policy Support                                 |  |
|  | Other/unspecified                                    | Modal Shift with Associated GHG Emission Cuts              |  |
|  | Policy & national budget support & capacity building | NA   |  |
|  | Private road transport                               | Battery EVs  |  |
|  |  | EV chargers  |  |



| Sector  | Sub-sector  | Mitigation or adaptation solution                           | Additional information and examples  |
|---|---|---|--|
|   | Rail & public transport                                 | Energy Efficiency - Retrofit                                | Fleet Retrofit with clear energy efficiency gains  |
|   |   | Modal Shift Policy Support                                  |  |
|   |   | New Bus, Light or Heavy Rail Fleet & Related Infrastructure | With associated modal shifts from a higher-carbon transport mode. FF-powered rail engines are excluded                                   |
|   | Transport-oriented urban development and infrastructure | Infrastructure for non-motorized transports                 |  |
|   |   | Resilient infrastructure and infrastructure for resilience  | Ex. Use of revised codes for infrastructure design that consider increased frequency or severity of extreme event                        |
|   | Waterway  | Energy Efficiency - Retrofit                                |  |
| New Low-carbon Fleet & Related Infrastructure |   |   |  |
| <b>Waste</b>                                  | Other/unspecified                                       | NA  |  |
|   | Policy & national budget Support & capacity building    | NA  |  |
|   | Solid waste   | Infrastructure & management (incl. recycling)               |  |
| <b>Water &amp; Wastewater</b>                 | Other/unspecified                                       | NA  |  |
|   | Policy & national budget support & capacity building    | NA  |  |
|   | Wastewater treatment                                    | Infrastructure & management                                 | Greenfield or brownfield projects that reduce methane or nitrous oxide emissions through wastewater, fecal sludge, or septage management |
|   |   | NA  |  |
|   | Water supply & sanitation                               | Basic water access  |  |
|   |   | Efficient large Infrastructure                              |  |

**Note:** The Africa Landscape does not capture investments that have a high risk of locking in significant future GHG emissions such as financing for efficiency retrofits of coal-fired power plants or transition fuels like natural gas.

## 1.3 COUNTRIES AND REGIONAL CLASSIFICATION

CPI follows the list of 'UN regional groups of Member States' (UNFCCC, 2021) to identify the African countries covered by the Africa Landscape report. We classified the countries into subregions according to geographic location—North Africa, Central Africa, East Africa, West Africa, and Southern Africa—as shown in Table 2. Financial flows are classified as 'transregional' when identified resources are channeled to more than one region.

For the first time, the Africa Landscape adopted a high-level classification of countries based on income and development status (See Table 2), following the GLCF classification (CPI 2023b). The basis for the classification is the UN Statistics Division Standard Country or Area Codes for Statistical Use, also known as the M49 Standard (UNSD 2023) and the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC 2023). This covers geographical regions and, at the time of the literature cut-off date, identified developed regions, developing regions, and least developed countries (LDCs).

**Table 2. Country classification by region**

| Region          | Country or territory   |
|-----------------|--|
| North Africa    | <b>EMDE:</b> Algeria, Egypt, Libya, Morocco, Tunisia   |
| Central Africa  | <b>EMDE:</b> Cameroon, Congo, Equatorial Guinea, Gabon<br><b>LDC:</b> Angola, Central African Republic, Chad, Democratic Republic of Congo, São Tomé and Príncipe  |
| East Africa     | <b>EMDE:</b> Kenya, Mauritius, Seychelles, Zimbabwe<br><b>LDC:</b> Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Madagascar, Malawi, Mozambique, Rwanda, Somalia, South Sudan, Sudan, United Republic of Tanzania, Uganda, Zambia |
| West Africa     | <b>EMDE:</b> Côte d'Ivoire, Cape Verde, Ghana, Nigeria<br><b>LDC:</b> Benin, Burkina Faso, Gambia, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Senegal, Sierra Leone, Togo  |
| Southern Africa | <b>EMDE:</b> Botswana, Eswatini, Namibia, South Africa<br><b>LDC:</b> Lesotho  |

Some of the surveys returned by DFIs aggregated values for the Middle East and North Africa (MENA). For cases in which it was not possible to find granular data for North Africa alone, MENA values were excluded from our analysis to take a conservative approach.

## 2. DATA SOURCES AND TREATMENT

### 2.1 KEY DATA SOURCES

| Source   | Data granularity   | International / Domestic Providers | Public / Private Providers | Database Coverage   |
|--|--|------------------------------------|----------------------------|---|
| AidData China (AidData, 2023)*   | Project-level  | International                      | Public                     | Chinese state investments, including government banks, ministries, and state-owned enterprises  |
| Africa: The Big Deal (Catalyst Fund, 2024)*  | Project-level  | International and domestic         | Public and Private         | Funding deals secured by startups in Africa above USD 100,000   |
| Bloomberg New Energy Finance (BNEF) Renewable Energy Projects (BNEF, 2023a)  | Project-level  | International and domestic         | Public and Private         | Grid-connected renewable energy   |
| BNEF Small-scale solar (BNEF, 2023b)   | Aggregated   | International and domestic         | Private                    | Residential and commercial solar PV projects with capacity of less than 1MW   |
| Climate Bonds Initiative (CBI)   | Project-level  | Domestic                           | Public and Private         | Proprietary data  |
| Climate Funds Update (ODI & HBF, 2023)   | Project-level  | International                      | Public                     | Multilateral Climate Funds' commitments   |
| CPI Global Landscape of Climate Finance (2023)   | Project-level and aggregated data (depending on reporting institution) | International and domestic         | Public                     | Proprietary data, which includes primary survey data from more than 40 DFIs (MDBs and IDFC members) collected. In a few cases when only aggregate information was available from surveys, this was supplemented by project-level information from DFIs' website |
| Domestic Public Expenditure (Biennial Update Reports, Climate Budget Tagging Report, Climate Public Expenditure and Institutional Review etc.) | Project-level and aggregated data                                      | Domestic                           | Public                     | Cape Verde, Mauritius   |
| Green Climate Fund and Global Environment Facility   | Project-level  | International                      | Public and Private         | Individual project reports were screened to identify private and public finance mobilized by Green Climate Fund and Global Environment Facility transactions, apart from their own resources  |
| Global Off-Grid Lighting Association (GOGLA, 2023)   | Project-level and aggregated   | International and domestic         | Public and Private         | Financing raised by solar off-grid companies  |

| Source   | Data granularity | International / Domestic Providers | Public / Private Providers | Database Coverage  |
|--|------------------|------------------------------------|----------------------------|--|
| IEA on EV Charging Stations                                | Aggregated       | Domestic                           | Public and Private         | Proprietary data   |
| IJGlobal energy and infrastructure finance database (2023) | Project-level    | International and domestic         | Public and Private         | Non-energy projects like water, waste, municipal infrastructure, power Transmission and Distribution, and low-carbon transport |
| OECD DAC-CRS) (2024a; 2024b)                               | Project-level    | International                      | Public and Private         | Overseas development assistance data from bilateral and multilateral donors  |
| OECD private finance mobilized (OECD, 2023c)               | Aggregated       | International                      | Private                    | Private sector climate flows mobilized by bilateral and multilateral providers.  |
| REN21 solar water heater data (REN21, 2015)                | Aggregated       | International and domestic         | Public and Private         | Aggregated solar water heater country and regional capital costs   |
| World Bank Private Participation in Infrastructure*        | Project-level    | International                      | Private                    | Private investment in infrastructure projects in low and middle-income countries   |

Note: It is important to acknowledge that in reporting climate finance from these different sources we rely on the tracking methodologies and reporting followed by reporting institutions. While we make every effort to ensure the consistency of the data reported in the Africa Landscape, we do not audit or verify data providers' application of climate finance definitions.

\* New datasets that provide additional coverage of private as well as south-south flows. Together these total just under USD 1 billion.

## 2.2 DATA SCOPE AND TREATMENT

In terms of data treatment, following an extensive data scoping exercise, datasets are cleaned and processed. Where financing flows are detailed at the project level, data information about actors, geographies, instruments, and sectors is standardized. For climate finance of projects that are either financed or allocated to several countries an equal split is assumed.

Desk research complements the cleaning process where the datasets are lacking. In certain instances, in which complete investment information is unavailable, assumptions are made to fill gaps. These assumptions are in line with the principles outlined in Section 1. Furthermore, where information of climate relevance is not available, or is found to diverge with CPI's taxonomy, a keyword search is performed to filter for climate-related projects, as also detailed in Section 1.

**Climate Bonds:** The *Africa Landscape* uses a dataset of green bond issuances from Climate Bonds Initiative (CBI). The finance raised through green bond issuance is included in the *Global Landscape* mainly when climate projects are disclosed in post-issuance reporting. First, we screen issuance data to eradicate double counting with other data sources or data providers. From the remaining dataset, we check post-issuance documentation for project-level data. To be included in the *Africa Landscape*'s finance totals, information must be available on the value of

investment, the date of financing, the (climate-related) nature of the project, the instrument used, and the recipient of finance. We assume that projects with completion dates after the date of issuance receive primary financing unless otherwise specified. Where this information is not available, flows are excluded to avoid capturing refinancing and other non-primary transactions.

**Development Financial Institutions:** CPI uses project-level data wherever possible. Extensive surveys completed by MDBs and IDFC members were returned to CPI during the 2023 *Global Landscape of Climate Finance* research process. Many of these institutions are also present in the OECD-DAC Creditor Reporting System (OECD, 2024a)—which tracks Official Development Assistance and Other Official Flows—and also reported in BNEF (2023a).

CPI prioritizes granularity and trustworthiness in the data we report, such as that reported directly from the development institutions themselves. When surveys are returned at an aggregated level of detail, other reliable data sources, such as OECD and BNEF project-level datasets, are used to achieve the desired level of granularity. A review contrasting the figures in the project-level data against general aggregated data in the survey is carried out to check finance lines up. In case project-level information for some institutions was not available from either surveys or OECD, where possible, individual transactions were screened for climate relevance using the principles mentioned in Section 1.

If needed, another alternative applied was to assume that the allocated proportion of total resources to each sector/country is the same proportion for climate finance. Through the surveys we usually only know what percentage of resources went to sub-Saharan Africa (SSA) and MENA, and whether it was used for mitigation, adaptation, or dual objectives. In this case, we proceed to use a sector/country split for the total investments of the DFI, which can usually be found on the institutions' website. While this is a good proxy to expand the granularity of data, DFIs are encouraged to provide detailed project-level climate-tagged information

**Domestic Public Expenditure:** Domestic finance in Africa was limited due to reasons such as lack of climate tagging, or variable climate finance reporting. When available budget assigned to climate objectives was used as a proxy for domestic public disbursements.

**Global Off-Grid Lighting Association:** Since 2017, GOGLA's Deal Investment Database has captured financial transactions of companies selling pico-solar products, solar home systems, and off-grid solar appliances. To allocate transaction amounts to countries, amounts are split by country and implementing partner, as relevant, if implementation occurs in multiple locations. For instance, if a specific investment project occurs in Kenya, Nigeria, Tanzania, Zambia, and Uganda, the total amount will be split equally between all countries. While we understand this may not be a precise approach, it represents a good proxy to allocate finance to countries rather than providing regional estimates.

**Large-scale renewable energy projects:** Direct primary financing data on large-scale renewable energy projects<sup>4</sup> from the BNEF renewable energy and asset finance databases (2023a) is treated to identify its financing structure and the entities providing financing. See the 2023 *Global Landscape methodology* for more details (CPI, 2023b).

**Private Finance Projects:** The 2023 *Global Landscape* database (CPI, 2023a) contains different sources of mobilized private data. The *Africa Landscape* team worked to expand the database to include more private climate finance, including:

- **Africa: The Big Deal:** Monthly updated database maintained by Catalyst Fund, which tracks investment into the startup ecosystem in the region with tickets above USD 100,000 (Catalyst Fund, 2024). A climate relevance analysis was done on the data to filter out non-relevant projects.
- **Private Finance Mobilized:** OECD statistics on the amounts mobilized by the private sector via official development finance interventions (OECD, 2024c) were included after factoring in private investments from other data sources. A country and sector-level analysis was done to ensure only residual investment not already in the existing database is included to avoid double counting.
- **Private Participation in Infrastructure:** The World Bank's Public Private Partnership Database (World Bank 2024) has as a purpose to identify and disseminate information on private participation in infrastructure projects in low- and middle-income countries.

**Risk mitigation instruments:** The role of risk mitigation instruments—e.g., guarantees and insurance—in improving risk profiles, strengthening local debt markets, and facilitating financial product diversification is widely acknowledged. However, they are not included in CPI-tracked climate finance flows, as they are exercised only in specific circumstances. An analysis of 67 unique cross-border guarantee mechanisms available to international investors in Africa and the role of insurance products was carried out and is included in the Africa landscape report.

**Small-scale renewable energy investment:** Information was obtained from BNEF (2023b) on market size, generation capacity, and finance databases. This refers to mainly residential and commercial solar PV projects with a capacity of less than 1MW. For more details, see the 2023 *Global Landscape methodology* (CPI, 2023b).

**Solar water heating systems:** Investments by households, corporates, and governments in solar water heating systems, estimated based on cost data from the International Energy Association Solar Heating and Cooling Programme (2020), country-level inflation rates from the World Bank (2023), and capacity additions data

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<sup>4</sup> We consider investments in wind, solar, biofuels, biomass and waste, geothermal, marine, and small hydro projects that reached financial closure in 2019 and 2020.

from IEA SHC (2022 and 2023) For more details, see the [2023 Global Landscape methodology](#) (CPI, 2023b).

**South-South Flows:** Special focus was placed on tracking climate finance flowing from China to Africa. AidData was used as the source of Chinese Public Development Finance, including flows from SOEs, government banks, and state agencies (AidData 2023). Given that AidData covers development finance investments, a climate-relevance filtering was carried out. In addition, the latest available information (2021) was used as a proxy for 2022.

**Voluntary Carbon Markets:** Africa's vast renewable energy potential and rich biodiversity position it for significant growth in voluntary carbon markets. While the lack of granular data on these markets makes it difficult for inclusion in total flows, the report analyzes the volume and value of carbon credits, pricing, and the best practices and challenges observed in Africa (see Section 2.5.1 in the report).

**Urban climate finance:** African cities are increasingly central to the global climate conversation. To accurately identify and estimate urban climate finance in Africa requires a comprehensive urban tagging exercise of all financial flows. Some estimates from the Cities Climate Finance Leadership Alliance's 2024 *State of Cities Climate Finance* publication are provided in the report.

**Other analytical spotlights** include a debt vulnerability assessment (Box 8, Section 2.5), climate finance flows in conflict-affected African countries (Box 4, Section 2.3.2), data from the Global Emerging Markets Risks Database Consortium (GEM) on default recovery rates for Africa (Box 3, Section 2.2.2), and domestic resource mobilization (Section 2.2.2).

### 3. DATA LIMITATIONS AND GAPS

Figure 1 highlights some of the key gaps in the *Africa Landscape* data by actor type and sectors.

**Figure 1: Tracked and untracked climate finance by actors and sectors (annual average for 2021/22, billion)**

|                      | Energy Systems | AFOLU <sup>1</sup> | Transport | Water and Wastewater | Buildings & Infrastructure | Industry | Others & Cross-sectoral <sup>2</sup> |
|----------------------|----------------|--------------------|-----------|----------------------|----------------------------|----------|--------------------------------------|
| Private              | 5.74 ↑         | 0.7 ↑              | 0.08      | 0.01 ↓               | 0.37 ↑                     | 0.18 ↑   | 0.69 ↑                               |
| Public Domestic      | 0.25 ↓         | 0.07 ↓             | 0.03 ↓    | 0.6 ↓                | n/a                        | n/a      | 0.6 ↑                                |
| Public International | 7.68 ↑         | 6.23 ↑             | 4.36 ↑    | 3.22 ↑               | 0.44                       | 0.36 ↑   | 11.48 ↑                              |

USD billion

Tracked
  Limited tracking
  Not available
 ↑ Increase compared to 2019/20
↓ Decrease compared to 2019/20

<sup>1</sup>AFOLU: Agriculture, Forestry and Other Land Use

<sup>2</sup>Others & Cross-sectoral flows include financing for capacity building, policy support at national level, disaster risk management (18%), financial inclusion, Covid-19 and other benefits such as healthcare and social security.

**Note:** In addition to the sectors listed above, Information Communications and Technology, Waste and Unknown sectors make up USD 1.17 billion of climate finance in Africa.

**Challenges tracking climate-relevant budget expenditures:** Public domestic finance remained a key area of improvement in the region. Even though domestic budgetary allocations are a critical source of financing for climate projects, tracking domestic climate expenditure is fraught with challenges. There is a clear lack of a widely accepted definition, methodology, and guidance for what counts as climate finance at national levels. There are also no unified nor standardized databases that integrate information in a systematic manner from various ministries, departments, and agencies at the national and subnational levels. Additionally, limited information on budget codes and expenditures is available in the public domain. Furthermore, there is a lack of data infrastructure across many countries in the region, making the monitoring, tracking, and unification of all data points harder.

**Challenges of tracking and reporting private sector investments:** Measuring climate investments in water, agriculture, transport, and other sectors is limited by the lack of



standardized methods widely accepted by the private sector and a lack of internal resources and capacity for tracking and reporting. For instance, private adaptation investments are difficult to track due to challenges associated with context dependency, the uncertain causality of investments made, a lack of impact metrics, and confidentiality and reporting requirements. Often, adaptation investments are part of a larger investment, requiring detailed project information to single out the adaptation component. Climate resilient activities are also often integrated into development interventions or business activities and, therefore, are rarely standalone. Some market incentives and regulatory pressures are emerging to be the driving forces behind private investors creating internal mandates and dedicating talent towards non-financial disclosures to manage transition and physical risk in countries like South Africa and Morocco, where financial markets are more advanced (WWF, 2021). However, comprehensive and consistent information on private climate investments at the country and regional level is unavailable.

**Challenges of tracking private finance mobilized:** While public financial institutions are making efforts to demonstrate the impact of the investments in mobilizing private finance, challenges persist. Definitional challenges arise when terms like 'mobilization', 'leverage', and 'catalyzing' are used interchangeably by organizations. The measurement of private investment 'mobilized' also depends on setting the organizational and transactional boundaries (e.g., decisions around determining whether transactions directly or indirectly linked should be counted, or whether all past or future transactions after project delivery should be counted, etc.) significantly affect the measurement of the private finance mobilized by individual investments.

**Chinese investments /South-South Flows:** Chinese public investments in Africa averaged USD 18.4 billion per annum between 2010 and 2021 (AidData 2023). This spreads across various sectors like energy (26%), transport and storage (23%), industry, mining, and construction (15%), and others. China is not a member of the OECD's Development Assistance Committee, and therefore there is limited or no official reporting of its development assistance data. Based on the financial details of the committed investments, it is estimated that, on average, USD 3 billion were ODA-like each year, of which only USD 241 million were climate-related. It is important to note that the breadth of Chinese investment actors (policy banks like China Exim Bank and China Development Bank, SOEs, government agencies, and privately owned Chinese companies) makes it difficult to track Chinese investment and understand the climate relevance of these investments. More rigorous studies are needed to comprehensively understand the economic, social, and environmental impact of Chinese investment.

**Lack of data on actual disbursements:** Data on disbursement is critical to understanding the on-the-ground impact and progress of committed projects. However, it is difficult to gather information on actual disbursements of finance as large, committed amounts are often disbursed over several years. Consistent data on disbursements is often lacking across

international public finance actors, though some initiatives are emerging. For example, the OECD-CRS contains data on commitments and disbursements for development assistance projects. Data on actual disbursement is usually available through national budget and expenditure systems, but the lack of climate budget-tagging adds a layer of complexity when measuring and tracking climate-relevant disbursements. While the *Africa Landscape* tracks mostly commitments, some of CPI's country-specific landscape reports (to date, covering Brazil, China, Cote d'Ivoire, Germany, India, Indonesia, Kenya, and South Africa) also capture disbursement data, as it is more readily available through national budget and expenditure systems.

**Gender-responsive climate finance is still emerging:** Transitioning to a green economy offers a unique opportunity to simultaneously address current gender imbalances (CPI 2024). Climate change reinforces and exacerbates existing gender inequalities, and those most impacted by the climate crisis are usually those who are most vulnerable. Including gender awareness in the design of new and current sustainable initiatives can help solve other contextual gaps that women face. Gathering data at the intersection of climate finance and gender equality at the project level is the first step towards using climate strategy as a means to address the gender gap. The OECD and a few DFIs remain the main sources of gender-tagged data.

**Risk management instruments:** We acknowledge the importance of guarantees and insurance in enabling increased private climate flows, in particular to areas and sectors with low risk appetites for private investment. However, following the principle of conservatism, we exclude these instruments from the total climate finance figure because actual disbursements from these instruments are contingent upon uncertain future events. Guarantees are only exercised in particular circumstances, and there is a chance of there never being any financial outflow from the guarantor.

**Carbon markets:** Despite their huge potential in Africa, the lack of transparency of voluntary carbon markets, along with an asymmetry of information and negotiating power between buyers and sellers, hinders both their development and the tracking of related finance. Access to quality information, with project-level granularity, comprehensive financial and environmental data on the investment, as well as standardized and centralized will be fundamental to assess the progress and impact of voluntary carbon markets in Africa.

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